

Superfamily SCIAROIDEA

6. Family DITOMYIIDAE

By Loïc Matile

Ditomyiids form a small family of 8 genera and about 90 species. Distributed worldwide (except in the Afrotropical Region), most species are found in the Australasian and Neotropical regions. The earliest fossil dates from the European Eocene/Oligocene (in Baltic amber). It belongs to *Symmerus* Walker, a genus still extant in the Holarctic. *Centrocnemis imperfecta* Riek, described from the Tertiary Redbank Plains series of Queensland, probably belongs to *Australosymmerus*, still present in Australia (see Appendix I). Biogeographical data imply a much greater antiquity for these genera.

Two genera, with 34 species, are known from the Australasian Region. All of these species are more or less closely related to groups with a Chilean center of endemism. Colless (1970b) noted that the Australian *Australosymmerus* seemed more closely allied to the Patagonian species than to the New Zealand species. That conclusion was also

reached by Munroe (1974), who noted that both Australian and New Zealand species of this genus have a sister-group relationship with Chilean species instead of with one another. These Transantarctic tracks imply that the Southern Hemisphere ditomyiids must have a common ancestor dating as far back as the Lower Cretaceous.

Larvae of species belonging to 2 Holarctic genera (*Symmerus* and *Ditomyia* Winnertz) and 1 Chilean Australasian genus (*Australosymmerus*) are known. They live either in ligneous Polyporaceae (bracket fungi) or in dead but unrotten wood, where they bore galleries. Like other Mycetophiloidae, the adults are mainly sylvan. They can be swept in low vegetation or collected in Malaise traps.

Refs.: Tonnoir & Edwards (1927, rev. NZ spp.), Colless (1970b, rev. Australian spp.), Munroe (1974, rev. phylog., zoogeogr. *Australosymmerus*, *Symmerus*).

Genus AUSTRALOSYMMERUS Freeman

CENTROCNEMIS Philippi, 1865: 619. Type species: *Centrocnemis stigmatica* Philippi, 1865, mon.

[Preocc. Signoret, 1852.]

AUSTRALOMYIA Freeman, 1951b: 7 (n. n. for *Centrocnemis*). [Preocc. Schmid, 1950.]

AUSTRALOSYMMERUS Freeman, 1954b: 39 (n. n. for *Australomyia*).

Subgenus AUSTRALOSYMMERUS Freeman

CENTROCNEMIS Philippi, 1865: 619 (as gen.). Type species: *Centrocnemis stigmatica* Philippi, 1865, mon. [Preocc. Signoret, 1852.]

AUSTRALOMYIA Freeman, 1951b: 7 (n. n. for *Centrocnemis*). [Preocc. Schmid, 1950.]

AUSTRALOSYMMERUS Freeman, 1954b: 39 (n. n. for *Australomyia*).

basalis Tonnoir in Tonnoir & Edwards, 1927: 759 (*Centrocnemis*). NZ (NZ).

nitidus Tonnoir in Tonnoir & Edwards, 1927: 759 (*Centrocnemis*). NZ (NZ).

tillyardi Tonnoir in Tonnoir & Edwards, 1927: 758 (*Centrocnemis*). NZ (NZ).

Subgenus CRIONISCA Colless

CRIONISCA Colless, 1970b: 95 (as gen.). Type species: *Crionisca rieki* Colless, 1970, orig. des.

aculeatus Edwards, 1921a: 434 (*Centrocnemis*). Australia (Tas).

rieki Colless, 1970*b*: 95 (*Crionisca*). Australia (Vic); Australia (ACT, Tas).

Subgenus VENTRILOBUS Munroe

VENTRILOBUS Munroe, 1974: 45. Type species: *Centrocnemis fuscinervis* Edwards, 1921, orig. des.
anthostylus Colless, 1970*b*: 90. Australia (Tas).
cornutus Colless, 1970*b*: 95. Australia (NSW); Australia (Vic).
fuscinervis Edwards, 1921*a*: 434 (*Centrocnemis*). Australia (Tas); Australia (NSW).
nebulosus Colless, 1970*b*: 92. Australia (Tas).
propinquus Colless, 1970*b*: 90. Australia (Tas).

Unplaced species of *Australosymmerus* Freeman

fumipennis Tonnoir *in* Tonnoir & Edwards, 1927: 758 (*Centrocnemis*). NZ (NZ). **N. comb.**
naevius Colless, 1970*b*: 94. Australia (NSW); Australia (Vic).
tonnoiri Colless, 1970*b*: 92. Australia (Tas).
trivittatus Edwards *in* Tonnoir & Edwards, 1927: 759 (*Centrocnemis*). NZ (NZ).

Genus NERVIJUNCTA Marshall

CYRTONEURA Marshall, 1896*b*: 262. Type species: *Cyrtoneura hudsoni* Marshall, 1896, mon. [Preocc. Agassiz, 1847.]
NERVIJUNCTA Marshall, 1896*b*: 265. Type species: *Nervijuncta nigrescens* Marshall, 1896, mon.
HUTTONIA Marshall, 1896*b*: 267. Type species: *Platyura tridens* Hutton, 1881, mon. [Preocc. Pickard Cambridge, 1880.]
ARCTONEURA Hutton, 1904*a*: 133 (n. n. for *Cyrtoneura*).
CASA Hutton, 1904*a*: 133 (n. n. for *Huttonia*).
CYCLONEURA, error for *Cyrtoneura*.
bicolor Edwards *in* Tonnoir & Edwards, 1927: 770. NZ (NZ).
flavoscutellata Tonnoir *in* Tonnoir & Edwards, 1927: 765. NZ (NZ).
harrisi Edwards *in* Tonnoir & Edwards, 1927: 766. NZ (NZ).
hexachaeta Edwards *in* Tonnoir & Edwards, 1927: 766. NZ (NZ).
hudsoni Marshall, 1896*b*: 263 (*Cyrtoneura*). NZ (NZ).
longicauda Edwards *in* Tonnoir & Edwards, 1927: 765. NZ (NZ).
marshalli Edwards *in* Tonnoir & Edwards, 1927: 769. NZ (NZ).
nigrescens Marshall, 1896*b*: 266. NZ (NZ).
nigricornis Tonnoir *in* Tonnoir & Edwards, 1927: 767. NZ (NZ).
nigricoxa Edwards *in* Tonnoir & Edwards, 1927: 770. NZ (NZ).
ostensackeni Tonnoir *in* Tonnoir & Edwards, 1927: 767. NZ (NZ).
parvicauda Edwards *in* Tonnoir & Edwards, 1927: 763. NZ (NZ).
pilicornis Edwards *in* Tonnoir & Edwards, 1927: 764. NZ (NZ).
pulchella Edwards *in* Tonnoir & Edwards, 1927: 768. NZ (NZ).
punctata Tonnoir *in* Tonnoir & Edwards, 1927: 768. NZ (NZ).
 ssp. **punctata** s. str. NZ (NZ).
 ssp. **robusta** Tonnoir *in* Tonnoir & Edwards, 1927: 769 (*punctata* var.). NZ (NZ).
ruficeps Edwards *in* Tonnoir & Edwards, 1927: 762. NZ (NZ).
tridens Hutton, 1881: 12 (*Platyura*). NZ (NZ).
wakefieldi Edwards, 1921*a*: 435 (*Arctoneura*). NZ (NZ).
 ssp. **abbreviata** Edwards *in* Tonnoir & Edwards, 1927: 762 (*wakefieldi* var.). NZ (NZ). **N. stat.**
 ssp. **wakefieldi** s.str. NZ (NZ).